

## ADVANCING EQUINE DENTISTRY & MOUTH BALANCE

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Equine dentistry is an integral part of veterinary practice that presently is going through rapid modernization, constant improvement, and poorly understood controversies. Equine dentistry continues to be performed by licensed veterinarians; however, it is also presently being performed illegally in New York State by many untrained, unlicensed, lay (non-veterinary) individuals.

Medical licensing was first established in the late 1800s to properly advance medical professions, regulate practicing professionals, and protect the public. The licensing of physicians began in New York State in 1891, and the first veterinary license was issued in 1895. The original language for veterinary licensure was amended in the 1980s but hasn't been rewritten or amended since then- some 25 years ago.

A veterinary license is issued by law through the New York State Department of Education's Veterinary Practice Act. As per Article 135 (Veterinary Medicine and Animal Health Technology), only the following non-medical (non-veterinary) person(s) are eligible to care for a horse's teeth: "Any (human) dentist duly licensed in this state who provides dental care to an animal at the request and under the immediate personal supervision of a licensed veterinarian." The law specifically names a licensed (human) dentist; not an unlicensed, lay (non-veterinary) individual. Specifically, the business practice of equine dentistry in New York State is limited to licensed professionals only. This is to protect the public and to establish guidelines for appropriate professional service behavior.

### PROFESSIONALS ONLY

Many unlicensed, non-professional, lay people calling themselves equine dentists, provide service without proper medical training or credentials. Only a licensed veterinarian can legally administer sedatives, dispense medications, and perform dental



*Dr. Beroza and assistant demonstrate Power Floating. ©HORSEDOC*

surgical procedures, such as tooth extractions (removing caps). Filing horses' teeth (floating) is done by using dental equipment intended to balance and level a horse's mouth and correct its dental inclusion. A complete oral examination is supposed to be performed at the same time as the dental floating. To practice equine dentistry today without a medical license is comparable to the dark ages, when barbers performed surgery. That's why medical licensing was established in the late 1800s.

Basic equine dentistry includes filing or floating a horse's teeth in the traditional way, by strictly using dental hand tools. This older method can be adequate; however, it is difficult to be as accurate and as effective with hand tools as compared with the newer methods developed in recent years (approximately 10 years ago), in which power equipment is routinely employed. The old way often does not allow full access to the back teeth, and therefore true balancing of the entire mouth cannot be achieved. If sedation and a speculum are used, the traditional method would more closely approach the level of accuracy of the newer methods of power floating. The newer power floating methods also minimize the fatigue and optimize the consistency of performing optimal mouth-balancing services for many hours in a row; as compared with the older hand methods.

### POWER FLOATING

Power floating requires mild sedation, which can only be given by a properly licensed veterinarian. A full-mouth speculum is then used to prop the horse's mouth open wide enough for a complete visual examination and the teeth then can be floated (filed and/or balanced) evenly and properly without injury to the nearby soft tissues of the inside of the mouth and tongue. These newer techniques have successfully filled a void at the New York racetracks since 2006 when unlicensed lay individuals were barred from performing equine dentistry. However, many Thoroughbred trainers were affected by and understandably upset by the cost increase thereby created for equine dentistry now performed routinely by veterinarians (who added the cost of sedation, assistants and any other necessary medications), rather than by unlicensed lay individuals. Until recently, not



*Power Floating equipment is next to a horse's skull. ©HORSEDOC*

enough licensed veterinarians were experienced, available or willing to work on horses' teeth. This too has changed.

A trainer is hard pressed to completely determine the efficiency of a dentist's efforts. Furthermore, they may not fully realize there is a direct correlation between good dental health and optimal athletic performance. In my past 2 years of practicing equine dentistry at the New York racetracks and in my previous 10 years of using power floating equipment in all types and uses of horses within my practice, I made major improvement in both horses' dental care and their performance that were not obtained when the older techniques were used. Trainers have repeatedly described improved performance, such as:

- Elimination of undesired lead switches and/or veering in or out on the track;
- Resolution of some previously undiagnosed soundness issues;
- Elimination of dropping grain at feeding;
- Increased weight gain and conditioning;
- Better attention and less playing with the bit; and,
- Fewer problems with breathing and bleeding.

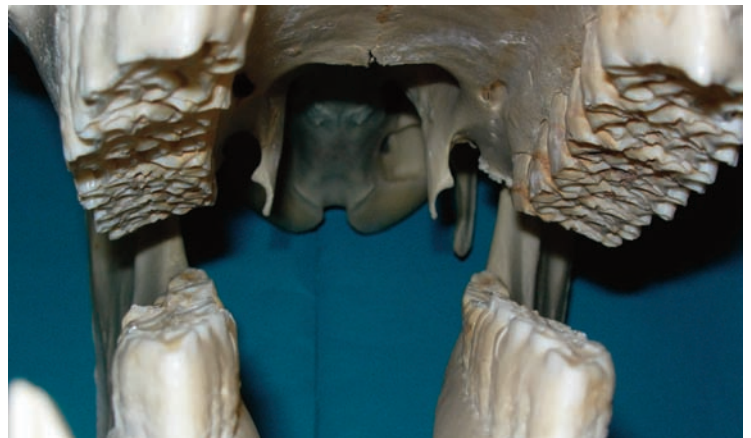
One race horse that had a history of flipping over backwards and hurting its exercise rider when being sent to the track for training, ceased that dangerous behavior after I balanced its mouth.

During my period of power floating at the NYRA tracks, one of my regular client trainers, Gary Contessa, captured Leading Trainer titles for both the 2006-07 Winter Aqueduct and the 2007 Spring-Summer Belmont meets.

Outward signs of an incorrectly balanced mouth may include digestive problems, poor body conditioning, the inability to chew properly, changes in head carriage, head shaking, veering in or out and unwanted lead switches, not accepting the bit, and others. Certain soundness and upper respiratory problems can be alleviated and/or helped by good dental care. For optimal performance, the teeth should be regularly leveled off and the baby teeth (caps) properly removed (extracted) at the right time. Again, extraction is a state regulated dental procedure not to be performed by unlicensed individuals. I recommend routinely floating teeth twice a year for most horses and three times a year for racehorses and high-level performance horses.

Although the condition of a horse's mouth is not as obvious via external physical observation as is that of its legs and feet, a balanced mouth is just as important for optimal performance. A horse's legs and hooves were designed for flight; while its teeth are a product of evolution as a grazing animal. The 12 front teeth grab and bite, while the 24 rear molars do the grinding. A horse's teeth undergo changes as it ages; the upper ones drop down from within the nasal sinuses and the lower ones erupt from the lower jaw, both at an estimated rate of 1/8 an inch per year in younger horses. The flat surfaces of the teeth of an unbalanced young horse's mouth can gradually wear to nearly a 45-degree occlusal angle as they grow older. As a grazing animal, the horse eventually may wear its own teeth down to an abnormal angle because the upper row is slightly wider than the lower row. This anatomic conformation places uneven stress on the jaw bones and both TM (temporal-mandibular) joints. Young horses regularly lose their baby teeth (caps) until they are 5 years old. The teeth of older horses erupt more slowly and begin to fracture or to be lost. The best nutrition cannot adequately compensate for the inability to chew and digest properly, which in turn can lead to ulcers, colic and other conditioning problems.

Laws regulating proper equine dental care vary from state to



*Oral view of points on horses' upper and lower teeth. ©HORSEDOC*

state. There is no uniform national training code other than courses properly taught by each veterinary college. Interpretation of each state law or code differs, depending on the individual case or legal judgment. If any harm occurs to a horse under the care of an unlicensed non-veterinary individual performing dental procedures, such as a broken tooth, an oral infection, a lost tooth, or a reaction to medication, etc, the owner has little legal recourse. Furthermore, lay individuals performing dental procedures cannot obtain malpractice insurance for doing such. Therefore, should something go wrong with the services of an unlicensed individual, who is responsible? It is therefore best to use a professional who is equipped to handle all forms of equine dentistry. If your veterinarian does not practice dentistry, ask him/her to refer you a qualified veterinarian who does.

The American Association of Equine Practitioners views dentistry as an integral part of equine veterinary medicine. It further condones the use of licensed veterinary technicians only under the employ and direct supervision of licensed veterinarians for specific and appropriate veterinary dental procedures and only in states where that is allowed.

Although the New York State laws set forth by the Veterinary Practice Act are clearly stated, it appears that, to date, the interpretation and regulation of these laws has been indecisive, at best. In *Equine Veterinary Education* (May 2007), a recent publication of the American Association of Equine Practitioners, Lynn A. Caldwell, DVM, a member of the AAEP Dental Committee, explains how in many states and other countries the language contained in each of their veterinary practice acts is not specific enough to equine dentistry. Caldwell criticizes what she properly identifies as the language "loophole" that is exploited to the detriment of equine welfare and cautions her colleagues against the possibility of deregulating any field of veterinary medicine (specifically equine dentistry). She warns practitioners against "a weekend short course, lecture series or wet lab being misconstrued as a 'medical education' by some lay persons (non-veterinarians)" who then put that instruction into practice without supervision.

Having played a progressive role in modernizing and advancing equine dentistry, I urge owners and trainers to regard equine dentistry as a professional service and an important part of their horses' overall healthcare, which in turn significantly affects their performance. Even power floating has its bonafide critics when performed improperly; however, when done right, it is vastly superior to the older method. The services of a qualified veterinarian also licensed to perform surgical procedures and to administer medications is invaluable. Let's not remain in the unenlightened dark ages of equine dentistry any longer!